Amendment to Abstract

Please replace the Abstract with the following Abstract:

We have now discovered that mammals, have a DNA gene analogous to that existing in bacteria. MSH5 defects or alterations in this mismatch repair pathway in a mammal, such as a human can be diagnostic of a predisposition to cancer, and prognostic for a particular cancer. We have discovered and sequenced MSH5 in this in a number of mammals, including humans. This gene, can be used in assays, to express gene product, for drug screens, and therapeutically.